

**STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**



**STANDARD SPECIFICATIONS
FOR
AIRPORT CONSTRUCTION**

**(Advisory Circular 150/5370-10A, Standards for Specifying Construction of Airports,
as modified, and approved by the Federal Aviation Administration
for Airport Improvement Program contracts in Alaska)**

NOTE: Special Provisions for each project are marked as changes to the text of the Standard Specifications. Deleted text is identified by strikethrough. Additions are underlined. The location of each Special Provision is shown by a vertical bar in the margin.

ITEM P-630 PAVEMENT GROOVING

DESCRIPTION

630 1.1 This item shall consist of saw cutting of grooves on runways, taxiways or other paved surfaces to the dimensions shown on the Plans or as directed by the Engineer.

EQUIPMENT AND MATERIALS

630-2.1 PAVEMENT GROOVING MACHINE. The pavement grooving machine shall be a single self-propelled unit with multiple cutting blades mounted on a single shaft. The machine shall have a minimum cutting width of 900 mm and shall have diamond cutting blades. The unit shall have sufficient control to cut grooves to the tolerance specified below.

630-2.2 WATER. The grooving machine shall be furnished with a continuous source of water for cutting and clean-up. The Contractor shall be responsible for locating a water source capable of providing the quality and quantity of water necessary to ensure a continuous grooving operation.

CONSTRUCTION METHODS

630-3.1 LAYOUT. The area to be grooved shall be laid out in the field by the Contractor. The Contractor shall use string or chalk line or other method approved by the Engineer.

630-3.2 SAWING GROOVES. Grooves shall be cut at right angles to the centerline for grooving or runways or taxiways or in the direction specified for other surfaces. Grooves shall be cut continuously from beginning of the cut to the end without stopping. The alignment of grooves with respect to centerline shall be monitored continuously and corrected at the end of each shift or a maximum of 100 m.

Grooves shall extend a minimum of 2 m beyond the edge of structural pavement (side stripe) on surfaces with paved shoulders. On pavements without paved shoulders, grooves shall be cut as close as practicable to the edge of the pavement.

Should one cutting blade break during operations, work may continue until the end of that shift at which time the blade must be replaced. Should more than one blade break, work shall be suspended until all defective blades are replaced.

630-3.3 PAVEMENT CURING. No grooving will be allowed on a newly placed paved surface until sufficient time has elapsed to allow the pavement to cure. For Hot Mixed Asphalt (HMA) pavement, a minimum of 14 calendar days shall have elapsed before grooving. For Portland Cement Concrete (PCC) pavement, a minimum of 7 days shall have elapsed.

630-3.4 IN-PAVEMENT FIXTURES. Grooves shall be sawed no less than 150 mm and no more than 460 mm from in-pavement fixtures such as light fixtures or surface sensors.

No grooving shall occur through longitudinal or diagonal saw kerfs where lighting or surface sensor cables are installed. Grooves may be continued through longitudinal construction joints in PCC pavement.

630-3.5 CLEAN-UP. Clean-up shall be continuous throughout the grooving operation. Waste material collected during the grooving operation shall be disposed of by flushing with water, sweeping or by vacuuming. If waste material is flushed from the surface, the material shall not be allowed to enter any airport storm drain or sanitary sewer system.

630-3.6 TOLERANCES. Grooves shall be 6 mm deep and 6 mm wide with a tolerance of ± 1.6 mm. Not more than 60% of the grooves shall be less than 6 mm. Grooves shall be spaced at 38 mm center to center with a tolerance of +0 mm and -3 mm.

Grooves shall be perpendicular to the established centerline ± 1 degree. The grooves shall not vary more than 80 mm in alignment for a 23-m groove length.

METHOD OF MEASUREMENT

630-5.1 Pavement grooving will be measured either by neat line dimensions as shown in the Plans or as a single item of work. No deductions will be made for areas skipped to avoid joints or in-pavement fixtures.

BASIS OF PAYMENT

630-6.1 Payment will be made at the contract unit price or the lump sum price for pavement grooved and accepted by the Engineer.

Payment will be made under:

Item P-630a	Pavement Grooving - per square meter
Item P-630b	Pavement Grooving - per lump sum